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| 10/699,152      | 10/31/2003  | Flabio Cavalheiro    |                     | 1479             |

7590 02/21/2006  
Stephen E. Feldman  
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EXAMINER

BALSIS, SHAY L

| ART UNIT | PAPER NUMBER |
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1744

DATE MAILED: 02/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/699,152

Applicant(s)

CAVALHEIRO, FLABIO

Examiner

Shay L. Balsis

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 February 2004 and 06 January 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Drawings***

The drawings were received on 1/6/06. These drawings are accepted.

### ***Specification***

The disclosure is objected to because of the following informalities:

Since the applicant submitted a new drawing, the specification needs to be amended to include a brief description of the drawing. Additionally, the specification needs to be amended so that every line that reads "figure 10" will be changed to either figure 10a or 10b. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-8, 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Graham (USPN 4455705) in view of Nortman et al. (USPN 6276032).

Graham teaches a cleaning device comprising a cleaning member (figure 1, element 15) with a first surface having a scouring surface of loop material (figure 1, element 17) (claims 1 and 8) and a second surface comprising a sponge (figure 1, element 16) (claim 10). There is a base plate (figure 1, element 10) having a plurality of projections (figure 1, element 20) arranged in rows and columns for gripping the first surface of the cleaning member (claim 1, 6). The

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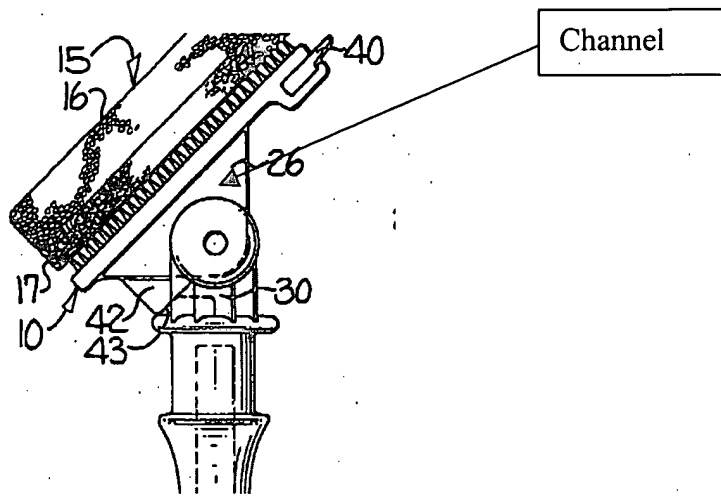
projections each have a top segment having opposing ends (figure 6, element 21) and an intermediate section separating the top segment from the base plate by a predefined distance (claim 2). The opposing ends of the projections each have free ends, which terminate at substantially a point, and therefore the opposing ends have a cross section that is thicker at the connection of said ends to the top segment than at said free ends (figure 7) (claims 2, 3, 4). The intermediate section having bottom end defined by the connection of the intermediate section to the base plate and a top end defined by the connection of the intermediate section to the top segment, wherein the cross section is thicker at the bottom end than at the top end (figures 6 and 7) (claim 3). The distance between the end of each free end is *substantially* the same as the distance between the top end and the bottom end of the intermediate segment (figure 7) (claim 5). The base plate comprises a handle member (figure 1, element 25) including a grasping means that is curved throughout and configured to closely conform to the curvature of the inside of a user's hand and the grasping means is removable from the base plate (figure 5). The handle has a channel formed between a bottom surface of the handle and the base plate. The channel is configured in such a manner as to accept at least part of a user's finger when the handle is grasped (see figure below) (claim 1). There is a connector (27, 32, 33) connecting the base member to the handle. The connector is capable of being disengaged for removing the handle from the base plate (figure 5) (claim 1). Graham teaches all the essential elements of the claimed invention however fails to teach that projection is T-shaped with the top segment having a substantially straight upper surface. Nortman teaches fastening hooks having a T-shaped projection each with a top segment that is substantially straight (figure 5, element 60). The projections have a lower surface and opposing ends (figure 5, element 77) and an intermediate

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section (figure 5, element 58) separating the top segment from the base plate by a predefined distance. The opposing ends of the projections each have free ends, which terminate at *substantially* a point (figure 5), and therefore the opposing ends have a cross section that is thicker at the connection of said ends to the top segment than at said free ends (figure 5). The intermediate section having bottom end defined by the connection of the intermediate section to the base plate and a top end defined by the connection of the intermediate section to the top segment, wherein the cross section is thicker at the bottom end than at the top end (figure 5). The distance between the end of each free end is *substantially* the same as the distance between the top end and the bottom end of the intermediate segment (figure 5).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Graham with the hooks as taught by Nortman since the hooks of Nortman can exhibit substantially equal fastening properties in substantially all directions that are parallel to a plane that is generally established by the substrate layer of the fastener component (col. 21, lines 51-55). Also, the fasteners of Nortman have increased loop-engaging and loop-retaining characteristics which leads to greater resistance to premature pop-opens (col. 6, lines 54-58). Additionally, the hooks as taught by Graham and the hooks as taught by Nortman are equivalent structures known in the art, which perform the same function of securing two substrates together. Therefore, because these two fastening means were art-recognized equivalents at the time the invention was made, one of ordinary skill in the art would have found it obvious to substitute the hooks of Nortman for the hooks of Graham.

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Claims 1-8, 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hintz (USPN 6493899) in view of Nortman et al. (USPN 6276032).

Hintz teaches a cleaning device comprising a cleaning member (figure 3, element 32) with a first surface having scouring surface of loops (figure 3, element 33) (claims 1) and a second surface comprising a sponge (figure 3, element 32). There is a base plate (figure 3, element 14) having a plurality of projections (figure 3, element 34) arranged in rows and columns for gripping the first surface of the cleaning member (claim 1). The projections each have a top segment having opposing ends and an intermediate section separating the top segment from the base plate by a predefined distance (claim 1). The base plate comprises a handle member (figure 3, element 40) including a grasping means that is curved throughout and configured to closely conform to the curvature of the inside of a user's hand and the grasping means is removable from the base plate (figure 2). The handle has a channel formed between a bottom surface of the handle and the base plate. The channel is configured in such a manner as to accept at least part of a user's finger when the handle is grasped (see figure below) (claim 1). There is a connector (46) connecting the base member to the handle. The connector is capable of

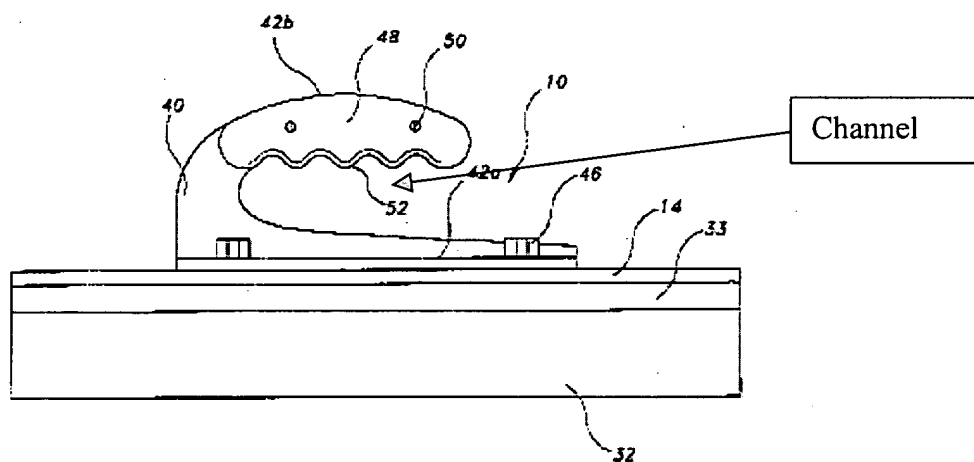
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being disengaged for removing the handle from the base plate (figure 2) (claim 1). Hintz teaches all the essential elements of the claimed invention however fails to teach that projection is T-shaped with the top segment having a substantially straight upper surface. Nortman teaches fastening hooks having a T-shaped projection each with a top segment that is substantially straight (figure 5, element 60). The projections have a lower surface and opposing ends (figure 5, element 77) and an intermediate section (figure 5, element 58) separating the top segment from the base plate by a predefined distance. The opposing ends of the projections each have free ends, which terminate at *substantially* a point (figure 5), and therefore the opposing ends have a cross section that is thicker at the connection of said ends to the top segment than at said free ends (figure 5). The intermediate section having bottom end defined by the connection of the intermediate section to the base plate and a top end defined by the connection of the intermediate section to the top segment, wherein the cross section is thicker at the bottom end than at the top end (figure 5). The distance between the end of each free end is *substantially* the same as the distance between the top end and the bottom end of the intermediate segment (figure 5).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hintz with the hooks as taught by Nortman since the hooks of Nortman can exhibit substantially equal fastening properties in substantially all directions that are parallel to a plane that is generally established by the substrate layer of the fastener component (col. 21, lines 51-55). Also, the fasteners of Nortman have increased loop-engaging and loop-retaining characteristics which leads to greater resistance to premature pop-opens (col. 6, lines 54-58). Additionally, the hooks as taught by Hintz and the hooks as taught by Nortman are equivalent

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structures known in the art, which perform the same function of securing two substrates together. Therefore, because these two fastening means were art-recognized equivalents at the time the invention was made, one of ordinary skill in the art would have found it obvious to substitute the hooks of Nortman for the hooks of Hintz.



Claims 1-8, 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Paepke (USPN 5003659) in view of Fay (USPN 2676758) and in view of Nortman et al. (USPN 6276032).

Paepke teaches a cleaning device comprising a cleaning member (figure 4, element 22) with a first surface having a scouring surface of loops material (figure 4, element 20) (claims 1 and 8) and a second surface comprising a sponge (figure 4, element 22) (claim 10). There is a base plate (figure 4, element 16) having a plurality of projections (figure 4, element 18) arranged in rows and columns for gripping the first surface of the cleaning member (claims 1 and 6). The base plate comprises a handle member (figure 2, element 12) including a grasping means that is curved throughout and configured to closely conform to the curvature of the inside of a user's



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hand and the grasping means is integral with the base plate. The handle has a channel formed between a bottom surface of the handle and the base plate. The channel is configured in such a manner as to accept at least part of a user's finger when the handle is grasped (figure 8, element R) (col. 3, lines 12-19) (claim 1) (see figure below). Paepke teaches all the essential elements of the claimed invention however fails to teach the exact style of hook/projection is used and also fails to teach that the handle is separable from the base plate.

Fay teaches a cleaning device comprising a handle (11) and base plate (1). There is a cleaning member (15) attached to the base plate. The handle comprises a channel (13) between the bottom surface of the handle and the base plate. There is a connector (12) connecting the handle and the base member. The connector allows the handle to be removed from the base plate.

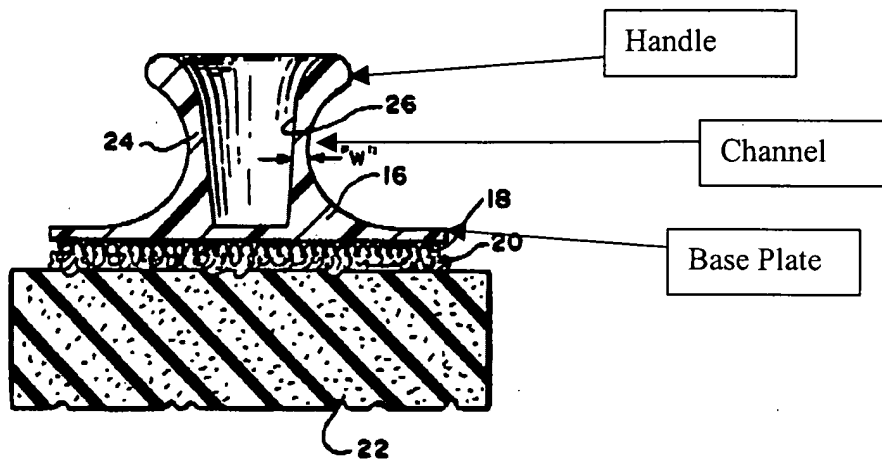
Nortman teaches fastening hooks having a T-shaped projection each with a top segment that is substantially straight (figure 5, element 60). The projections have a lower surface and opposing ends (figure 5, element 77) and an intermediate section (figure 5, element 58) separating the top segment from the base plate by a predefined distance. The opposing ends of the projections each have free ends, which terminate at *substantially* a point (figure 5), and therefore the opposing ends have a cross section that is thicker at the connection of said ends to the top segment than at said free ends (figure 5). The intermediate section having bottom end defined by the connection of the intermediate section to the base plate and a top end defined by the connection of the intermediate section to the top segment, wherein the cross section is thicker at the bottom end than at the top end (figure 5). The distance between the end of each free end

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is *substantially* the same as the distance between the top end and the bottom end of the intermediate segment (figure 5).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Paepke so that the handle is detachable from the base plate as taught by Fay since making integral parts separable is an example of a modification that has been considered to within the level of ordinary skill in the art to follow. *In re Dulberg* 129 USPQ 348, 349.

Additionally, it would have been obvious to use the hooks as taught by Nortman as the fastening means on Paepke since the hooks of Nortman can exhibit substantially equal fastening properties in substantially all directions that are parallel to a plane that is generally established by the substrate layer of the fastener component (col. 21, lines 51-55). Also, the fasteners of Nortman have increased loop-engaging and loop-retaining characteristics which leads to greater resistance to premature pop-opens (col. 6, lines 54-58). Additionally, the hooks as taught by Hintz and the hooks as taught by Nortman are equivalent structures known in the art, which perform the same function of securing two substrates together. Therefore, because these two fastening means were art-recognized equivalents at the time the invention was made, one of ordinary skill in the art would have found it obvious to substitute the hooks of Nortman for the hooks of Hintz.



Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Graham in view of Nortman and further in view of Garcia (USPN 5419015) or Hintz et al. in view of Nortman and further in view of Garcia (USPN 5419015) or Paepke in view of Fay and Nortman in further view of Garcia (USPN 5419015).

Graham in view of Nortman or Hintz in view of Nortman or Paepke in view of Fay and Nortman all teach all the essential elements of the claimed invention however fail to teach a cleaning member with a third surface comprising a scouring pad. Garcia teaches a cleaning member that comprises a first surface of loop material (figure 8, element 32), a second surface of sponge material (figure 8, element 33) and a third surface of an abrasive material such as a scouring pad (figure 8, element 34). It would have been obvious to one of ordinary skill in the art at the time the invention was made to add a scouring pad to the sponge surface of Graham in view of Nortman or Hintz in view of Nortman or Paepke in view of Fay and Nortman's cleaning member as taught by Garcia so as to increase the cleaning capabilities and versatility of the device.

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Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Paepke in view of Fay and Nortman and Garcia as applied to claim 9 above and further in view of Hortel et al. (USPN 6233771).

Paepke in view of Fay and Nortman and Garcia teaches all the essential elements of the claimed invention including that handle member including a grasping means that is curved throughout and configured to closely conform to the curvature of the inside of a user's hand and the grasping means is integral with the base plate. Paepke in view of Fay and Nortman and Garcia however fail to teach that the handle is a sphere (as stated in claims 11, option i). Hortel teaches a spherical handle attached to a cleaning member. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a spherical handle on Paepke in view of Fay and Nortman and Garcia's invention for ergonomic purposes since it would fit more comfortably in the user's hand and also create less stress and fatigue when in use.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Paepke in view of Fay and Nortman and Garcia as applied to claim 10 above and further in view of Hortel et al. (USPN 6233771).

Paepke in view of Fay and Nortman and Garcia teaches all the essential elements of the claimed invention including that handle member including a grasping means that is curved throughout and configured to closely conform to the curvature of the inside of a user's hand and the grasping means is integral with the base plate. Paepke in view of Fay and Nortman and Garcia however fail to teach that the handle is a sphere (as stated in claims 11, option i). Hortel teaches a spherical handle attached to a cleaning member. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a spherical handle on Paepke in

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view of Fay and Nortman and Garcia's invention for ergonomic purposes since it would fit more comfortably in the user's hand and also create less stress and fatigue when in use.

### ***Applicant's Arguments***

Applicant argues that Graham and Hintz do not teach T-shaped projections where the top segment has a substantially straight upper surface. Additionally, Applicant argues that Graham and Hintz do not teach the Applicant's handle. Graham teaches a handle that is capable of being grasped from the side and Hintz teaches a handle is that grasped in a way that the user's fingers wrap around the handle without being placed on the channel.

Applicant also argues that Lacey teaches "palm tree style" projections, instead of projections that have a straight upper surface.

### ***Response to Arguments***

Applicant's argument, filed 1/6/06, with respect to the Graham and Hintz and the handles, have been fully considered but are not persuasive. It is shown in the figures above that the cleaning devices of Graham or Hintz could be held in such a manner that a portion of the user's finger (tip) may fit within the channels. While the cleaning devices may not be intended to be held in this manner, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. Thus since the references are capable of being held in this manner, the references meet the claim limitations.

Applicant's arguments, filed 1/6/06 with respect to the rejection(s) of claim(s) 1-11 under Lacey have been fully considered and are persuasive. Therefore, the rejection has been

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withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Nortman et al. While Graham, Hintz and Lacey fail to teach T-shaped projections with a straight upper surface, Nortman teaches projections with this limitation. Therefore, new rejections were made in view of Nortman.

### *Conclusion*

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shay L. Balsis whose telephone number is 571-272-1268. The examiner can normally be reached on 7:30-5:00 M-Th, alternating F.

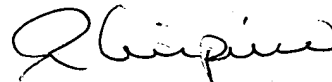
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on 571-272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Slb  
2/16/06



**RICHARD CRISPINO**  
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